



# UNITED STATES PATENT AND TRADEMARK OFFICE

1

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,078	12/11/2003	Dieter Wenninger	101769-242/tesa AG 1623-W	8479
27386	7590	11/15/2006	EXAMINER	
NORRIS, MCLAUGHLIN & MARCUS, P.A. 875 THIRD AVE 18TH FLOOR NEW YORK, NY 10022			DESAI, ANISH P	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/733,078	<b>Applicant(s)</b> WENNINGER ET AL.	
	<b>Examiner</b> Anish Desai	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1771

### **DETAILED ACTION**

The applicant's arguments in response to the Office action dated 03/08/06 have been fully considered.

1. Claims 1-13 are pending.
2. All of the art rejections are maintained. For convenience the examiner has provided the English translation of the reference of Hauber (DE4228436A1), which was not available at the time the previous Office action dated 03/08/06 was mailed. This office action is modified to take into consideration the English translation of DE4228436A1 and thus made Non-Final.

#### ***Specification***

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required. Claim 8 recites a limitation of "a layer of a primer", there is insufficient antecedent basis for this limitation in the specification.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 12 and 13 are method claims. However, claims 12 and 13 do not recite any steps that are used to accomplish claimed method.

Art Unit: 1771

The examiner had previously rejected claims 12 and 13 under 112-second paragraph and withdrawn this rejection in the 03/08/06 Office action. However, upon further consideration it is determined that the examiner had improperly withdrawn the 112 rejections. Thus, the 112 rejection is reintroduced.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,4,5-7,10,12,and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hauber (Derwent Abstract of DE 4228436A1) and English Translation of DE4228436A1.

Hauber teaches pressure sensitive adhesive mixture in the form of aqueous dispersion comprising acrylic acid and styrene wherein the styrene is added in the amount of from 0.5 to 35 wt%, especially in the amount of from 1 to 10 wt%. The adhesive is coated onto one or both sides of plasticized polyvinyl chloride sheet. The invention of Hauber is useful as adhesive sheets or tapes. With respect to the claim limitation of migration of the plasticizers from the sheet into the adhesive, although

Art Unit: 1771

Hauber does not explicitly teach that the plasticizers migrate from the polyvinyl chloride sheet into the adhesive, it is reasonable to presume that the plasticizers in the PVC sheet of Hauber will necessarily migrate into the adhesive. Support for said presumption is found in the use of like materials. The adhesive tape of the applicant comprises a sheet of plasticized polyvinyl chloride and an aqueous adhesive dispersion comprising styrene-acrylic acid copolymers wherein styrene fraction is from 10 to 70% by weight. The pressure sensitive adhesive tape of Hauber also comprises a plasticized polyvinyl chloride sheet that is coated with an aqueous adhesive dispersion comprising acrylic acid and styrene. Further, the adhesive of Hauber comprises styrene in the amount of from 0.5 to 35 wt%. The applicant is also claiming styrene weight fraction of 10% to 70%. Thus, the amount of styrene disclosed by Hauber meets the claimed amount of styrene as claimed in the claim 1. Therefore, the adhesive tape disclosed by the Hauber is similar to the adhesive tape of the applicant as claimed in the claim 1. Alternatively, note that since PVC plasticizers inherently migrate and there is no mechanism in Hauber to prevent such migration, it is the examiner's position that the adhesive of Habuer would contain plasticizers migrated from the plasticized PVC sheet. Moreover, with respect to the recitation "plasticizer migrated from the sheet into the adhesive", the applicant is reminded that article claims must be structurally distinguishable from the prior art. While features of an article may be recited either structurally or functionally, claims directed to an article must be distinguished from the prior art in terms of structure rather than function. Further, in relation to the claimed invention, the source of plasticizer in the adhesive is irrelevant, since the end result

Art Unit: 1771

having plasticizer added to the adhesive layer would be indistinguishable from a migrated plasticizer.

With respect to claim 4, the English translation of DE4228436A1 discloses 80  $\mu\text{m}$  thick plasticized PVC film (page 6). With respect to claims 5-7, the term "up to" as recited in claims 5-7 means that the adhesive layer can also contain 0% by weight of resin dispersion, plasticizer, and oil. Therefore the prior art adhesive does not have to contain the resin dispersion, dispersion, and plasticizer and oil as claimed in claims 5-7 respectively. Thus, the disclosure of Hauber meets the claim limitations of claims 5-7. With respect to claim 10, the English translation of DE4228436A1 discloses that for preparation of self-adhesive tapes, support materials are coated with adhesives. In addition to the conventional natural and synthetic rubber adhesives, there have long been polyacrylic acid ester adhesive that are applied from the melt, dissolved in organic solvents, from aqueous dispersions or solvent-free with subsequent radiation crosslinking on support materials (page 2).

With respect to claims 12 and 13, it is the examiner's position that the adhesive tape of Hauber is functionally capable of bundling, protecting, labeling, insulating or sealing ventilation pipes or wires or cables as claimed in claim 12 and functionally capable of being used in sheathing of cable looms and field coils as claimed in the claim 13 in view of the above mentioned teachings of Hauber with respect to claim 1.

Art Unit: 1771

6. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Czerepinski et al. (US 4,713,412) substantially as set forth in 03/08/06 Office action.

Czerepinski teaches an emulsion polymerized pressure sensitive adhesive composition that is used to manufacture articles such as tapes, decals, and decorative vinyl sheet (Column 4, lines 16-17). Further as shown in the Example III of Czerepinski, the pressure sensitive adhesive composition of Czerepinski comprises 35 wt% styrene and 3 wt% acrylic acid. At column 4, lines 7-11, Czerepinski teaches that the pressure sensitive adhesive composition adheres well to the resin surfaces such as plasticized polyvinyl chloride.

With respect to the claim limitation of migration of the plasticizers from the sheet into the adhesive, although Czerepinski does not explicitly teach that the plasticizers migrate from the polyvinyl chloride resin surface into the adhesive, it is reasonable to presume that the plasticizers in the plasticized polyvinyl chloride resin surface of Czerepinski will necessarily migrate into the adhesive, since PVC plasticizers inherently migrate and there is no mechanism in Czerepinski to prevent such migration. Further the adhesive tape of the applicant comprises a sheet of plasticized polyvinyl chloride and an aqueous adhesive dispersion comprising styrene-acrylic acid copolymers wherein styrene fraction is from 10 to 70% by weight. The pressure sensitive adhesive tape of Czerepinski also comprises a plasticized polyvinyl chloride resin surface that can be coated with the pressure sensitive adhesive composition comprising acrylic acid and styrene. Further, the pressure sensitive adhesive of Czerepinski comprises 35 wt%

Art Unit: 1771

of styrene. The applicant is also claiming styrene weight fraction of 10% to 70%. Thus, the amount of styrene disclosed by Czerepinski meets the claimed amount of styrene as claimed in the claim 1. Therefore, the adhesive tape disclosed by the Czerepinski is similar to the adhesive tape of the applicant as claimed in claim 1 and the plasticizer would necessarily migrate from the plasticized PVC to the adhesive. Moreover, with respect to the recitation "plasticizer migrated from the sheet into the adhesive", the applicant is reminded that article claims must be structurally distinguishable from the prior art. While features of an article may be recited either structurally or functionally, claims directed to an article must be distinguished from the prior art in terms of structure rather than function. Further, in relation to the claimed invention, the source of plasticizer in the adhesive is irrelevant, since the end result having plasticizer added to the adhesive layer would be indistinguishable from a migrated plasticizer.

With respect to claims 5-7, the term "up to" as recited in claims 5-7 means that the adhesive layer can also contain 0% by weight of resin dispersion, plasticizer, and oil. Therefore the prior art adhesive does not have to contain the resin dispersion, dispersion, and plasticizer and oil as claimed in claims 5-7 respectively. Thus, the disclosure of Czerepinski meets the claim limitations of claims 5-7.

7. Claims 3,8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauber (Derwent Abstract of DE 4228436A1) in view of Schwarcz (US 4,002,794) substantially as set forth in 03/08/06 Office action.

The invention of Hauber as applied to claim 1 is previously disclosed. Hauber is silent as to teaching of adhesive is applied to the PVC sheet in the amount of



Art Unit: 1771

10 to 50 g/m<sup>2</sup> as claimed in the claim 3, a primer as claimed in the claim 8, and a release layer as claimed in the claim 9. However, Schwarcz teaches novel copolymeric materials suitable for use as a release agent or as a component in a release composition, and to methods of their preparation. More particularly the invention relates to coated substrates having a surface coated therewith such as release liner and pressure sensitive adhesive tapes (Column 1, lines 6-13). With respect to the claim 3, the weight of the pressure sensitive adhesive composition of Schwarcz is in the range of between about 0.5 to 4 ounces per square yard of backing member (Column 12, lines 33-36) which equates to 16.95 grams per square meter to 136 grams per square meter (using 1 ounce = 28.35 grams and 1 square yard = 0.836 square meter). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the adhesive of Hauber using the disclosed weight of Schwarcz on the plasticized polyvinyl chloride sheet of Hauber, motivated by the desire to form the pressure sensitive adhesive tape.

Regarding claim 8, Schwarcz teaches a primer coating on the backing before the adhesive composition is applied to the backing (Column 12, lines 17-20) in order to improve the surface bonding characteristic of the backing to the pressure sensitive adhesive (Column 11, lines 16-20). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the primer layer of Schwarcz on the plasticized polyvinyl chloride sheet of Hauber before the application of adhesive, motivated by the desire to improve the bonding between the adhesive and the plasticized polyvinyl chloride sheet.

With respect to claim 9, Schwarcz teaches that a coating known as release coat or back size is generally provided on the back side of the tape backing member i.e. the side opposite that on which the adhesive mass is applied in order to provide easy unwinding of the tape when it is provided in a roll form (Column 1, lines 15-28). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a release coating of Schwarcz in the pressure sensitive adhesive tape of Hauber, motivated by the desire to prevent the adhesive from sticking to the surface of the backing that is facing the adhesive when the tape is in a rolled form.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hauber (Derwent Abstract of DE 4228436A1) in view of Glennon (US 4,311,759) substantially as set forth in the 03/08/06 Office action.

The invention of Hauber as applied to claim 1 is previously disclosed. Hauber is silent as to teaching an adhesive comprising antifoams, ageing inhibitors, and wetting agents. However, Glennon teaches a pressure sensitive adhesive composition comprising anti-oxidants (i.e. ageing inhibitors) to avoid the degradation of adhesive by oxidation (Column 6, lines 55-56), antifoam agent to prevent the degradation of the adhesive (Column 5, lines 65-68, column 6, lines 1-5), and a surface active agent (i.e. surfactants) to improve the substrate or carrier wetting (Column 7, lines 8-13). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the anti-oxidants, antifoam agents, and surface active agents of Glennon, motivated by the desire to prevent the degradation of the adhesive and to improve the substrate wetting.

***Response to Arguments***

9. Applicant's arguments filed 08/29/06 have been fully considered but they are not persuasive.

102/103 type rejections over DE4228436 (Derwent Abstract) are maintained for the following reasons. The applicant argues that the examiner has not pointed out to any specific teaching of an adhesive that is an aqueous dispersion of styrene-acrylic acid derivatives. The examiner respectfully disagrees. Note that the DE4228436 (Derwent Abstract) teaches that the pressure sensitive adhesive comprising components (A) to (D) which are copolymers of acrylic acid. Additionally, the DE 4228436 (Derwent Abstract) discloses that the copolymers may also contain other monomers such as methacrylate esters, methacrylonitriol, methacrylic acid, hydroxyethyl acrylate, and styrene. This is further exemplified by the English translation of DE 4228436. At page 4 of the English translation, DE 4228436 discloses that the pressure-sensitive adhesive that consists of a mixture of the components A through D. The components A to D disclosed by DE 4228436 are acrylic acid copolymers (page 4 of English translation). Additionally, DE 4228436 teaches that additional monomer such as methacrylic acid ester, methacrylic acid, methacrylonitrile, and styrene can be incorporated by polymerization in a limited amounts in the copolymers of the mixture components A to D (page 4 of English translation). Therefore, the adhesive composition of Hauber would necessarily contain styrene-acrylic acid copolymer. Moreover, DE 4228436 discloses the adhesive that is formed of aqueous dispersion (Derwent Abstract).

The applicant argues that DE 4228436 reference indicates that the adhesive is resistant to plasticizer. The examiner acknowledges that the adhesive of DE 4228436 is resistant to plasticizer. However, this does not mean that plasticizer would not migrate from the plasticized PVC to the pressure sensitive adhesive layer. Instead, it means the adhesive resists the deteriorative effects of a plasticizer. Note that DE 4228436 teaches the aqueous styrene-acrylic acid copolymer dispersion as claimed by the applicant (please see the rejection above). Further the amount of styrene (0.5 to 35 wt%) as taught by DE 4228436 meets the claim limitation of styrene fraction of from 10 to 70% by weight and the adhesive of DE 4228436 is also applied to a plasticized polyvinyl chloride backing. Therefore, it is not seen why the plasticizer would not migrate from the plasticized polyvinyl chloride backing (sheet) to the adhesive.

102/103 type rejections over Czerepinski et al. (US 4,713,412) are maintained for the following reasons. The applicant argues that the examiner has relied on the Example III of Czerepinski to teach a PSA comprising 35% styrene and 3% acrylic acid. However, the reference teaches that this composition is not a PSA because the composition shows peel adhesion of only 0.2 and sheet adhesion of 0. Therefore, the applicant concludes that no one would ever use this on an adhesive tape. The examiner respectfully disagrees. The PSA composition of EXAMPLE III (sample 4) is clearly a PSA because Czerepinski at column 20, line 21 discloses a PSA. While it may be true that a skilled artisan may not want to use such a PSA composition of the EXAMPLE III (sample 4) of Czerepinski in an adhesive tape, but this argument is irrelevant to the basis of the rejection. The question is whether the disclosure Czerwinski reads on the

Art Unit: 1771

applicant's claimed adhesive comprising styrene-acrylic acid copolymers wherein the styrene fraction is from 10% to 70% as claimed. The PSA composition of the EXAMPLE III (sample 4) of Czerepinski comprises 63% n-butyl acrylate and 35% styrene/3% acrylic acid, which read on the claimed adhesive comprising styrene-acrylic acid copolymers wherein the styrene fraction is from 10% to 70% by weight.

The applicant has generally asserted his/her disagreement with examiner's rejections of claims 3,8,9 and 11 but did not point out specific errors in the examiner's rejection. Therefore, the examiner's comments set forth above are sufficient to support the rejections of claims 3,8,9, and 11. Accordingly all of the rejections are maintained.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

APD



TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700